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EXAMINER

ZIMMERMANN, JOHN P

ART UNIT

PAPER NUMBER

2861

MAIL DATE

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10/20/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/540,130	Applicant(s) VOSAHLO ET AL.	
	Examiner John P. Zimmermann	Art Unit 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 125-172 is/are pending in the application.
- 4a) Of the above claim(s) 134-137, 139, 148-152, 163-166 and 168 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 125-133, 138, 140-147, 153-162, 167 and 169-172 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. This application still contains **claims 134-137, 139, 148-152, 163-166, & 168**, withdrawn without traverse in the reply filed on 16 November 2007. These claims were withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group and Species, there being no allowable generic or linking claim in the Office Action Dated 06 February 2008 and acknowledge in Applicant's Response Dated 30 June 2008. Cancellation of non-elected claims is hereby requested.

Allowable Subject Matter

2. The indicated allowability of **claims 128, 143, & 157** if rewritten in independent form is withdrawn in view of the newly discovered reference(s) to **Ostler et al.** (US 2001/0046652 A1). Rejections based on the newly cited reference(s) follow.

Response to Amendment

3. With respect to applicant's Amendments to the claims:
- a. **Claims 125-127, 133, 140-142, 155-156 & 169** have been amended and considered as such.
 - b. **Claims 134-137, 139, 148-152, 163-166, & 168**, have been withdrawn from further consideration, and cancellation is requested.
 - c. **Claims 170-172** have been added and considered as such.

Claim Objections

4. **Claim 140** was originally objected to because of informalities. The amended claim addresses the informalities, and the objection is withdrawn.

Claim Rejections - 35 USC § 112

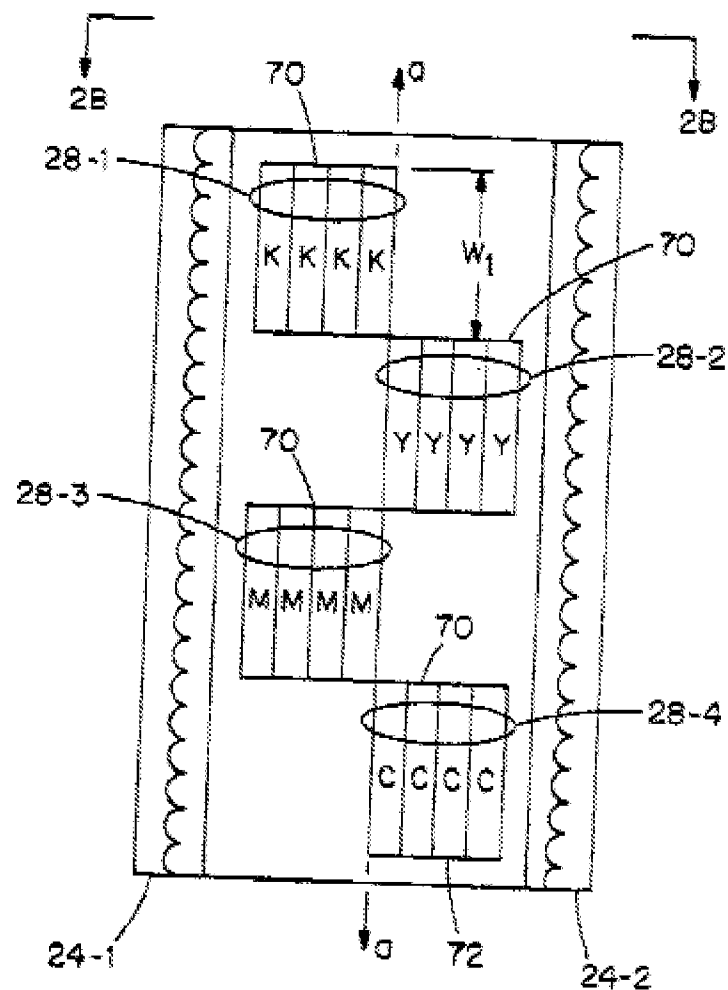
5. **Claims 127, 142, & 156** were originally rejected as being indefinite. The amended claims submitted 30 June 2008 further define the limitations and therefore the rejection has been overcome..

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. **Claims 125-127, 129, 130, 132, 133, 138, 140-142, 144-146, 154-156, 158, 160, 161, 167, & 169-172** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Cleary et al.** (US 2002/0149660 A1) in further view of **Ostler et al.** (US 2001/0046652 A1).

a. As related to independent **claim 126**, Cleary et al. discloses a radiation source for use in curing fluid in a printer comprising an array of LEDs (24) that comprises adjacent rows of LEDs (24-1, 24-2). The rows of LEDs comprise a plurality of LEDs arranged in a row direction [i.e. a multiplicity of light emitting diodes] are offset from each other across the printheads (28) (Cleary et al. – Summary, Page 1, Paragraph 6 and Figure 2A, shown below).



Cleary et al. -

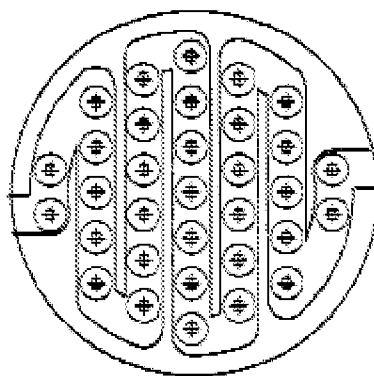
FIG. 2A

b. Continuing with **claim 126**, Cleary et al. also teaches various embodiments of this aspect of the invention to include other sources of radiation besides those discussed specifically (Cleary et al. – Summary, Page 1, Paragraph 7 and Detailed Description, Page 4, Paragraph 47). Cleary et al. *does not* specifically teach the row of LEDs is offset from an adjacent row of LEDs in a direction substantially parallel to the row direction. *However*, Ostler et al. teaches a radiation source for curing fluid, the source comprising an array of LEDs, particularly a plurality of adjacent rows of LEDs and a row of LEDs

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offset from an adjacent row of LEDs in a direction parallel to the row direction (Ostler et al. – Title; Abstract; & Figure 1110, shown below).

Ostler et al. -
FIGURE 1110



Given the same field of endeavor, specifically the use of an array of Light Emitting Diodes (LEDs) as a radiation source to cure a liquid material, it is apparent that one of ordinary skill in the art at the time the invention was made would have been motivated to combine the LED array of a multiplicity of LEDs used to cure radiation-curable ink as taught by Cleary et al. with the specific layout of the LEDs in an array of LEDs for curing the radiation-curable liquid as taught by Ostler et al., in an effort to provide the number of diodes necessary to achieve the output power to cure the material while adequately managing the heat to avoid heat damage to the curing light as well as the recording medium [i.e. the patient] (Ostler et al. – Background, Page 1, Paragraph 2 and Objects, Page 1, Paragraph 4).

c. As related to dependent **claim 127**, the combination of Cleary et al. and Ostler et al. remains as applied above, and continues to teach the adjacent rows of LEDs are offset so that adjacent LEDs in the adjacent rows do not align in a direction substantially perpendicular to the rows of LEDs (Ostler et al. – Figure 1110, shown above).

d. As related to dependent **claim 128**, the combination of Cleary et al. and Ostler et al. remains as applied above, and continues to teach the source comprises N rows of LEDs, the LEDs of each row having a pitch of w along the row direction, and wherein each row of LEDs is offset by Yw/N from an adjacent row, wherein Y, w, and N are integers (Ostler et al. – Figure 1110, shown above).

e. As related to dependent **claim 129**, the combination of Cleary et al. and Ostler et al. remains as applied above, and continues to teach the radiation source is adapted to emit UV radiation (Cleary et al. – Detailed Description, Page 3, Paragraph 37).

f. As related to dependent **claim 130**, the combination of Cleary et al. and Ostler et al. remains as applied above, and continues to teach that the source is elongate (Cleary et al. – Figure 2A, shown previously).

g. As related to dependent **claim 132**, the combination of Cleary et al. and Ostler et al. remains as applied above, and continues to teach that the source cures ink in an inkjet printer. The light emitting diodes (LEDs) expose the ink to ultraviolet radiation that sets or partially cures the ink beginning the curing process. The ink can then be fully cured with more UV radiation (Cleary et al. – Detailed Description, Pages 3-4, Paragraphs 37 & 45).

h. As related to independent **claim 133**, Cleary et al. discloses an apparatus for use in curing radiation-curable fluid, the apparatus comprising a radiation source comprising an array of LEDs (24) that comprises adjacent rows of LEDs (24-1, 24-2). The rows of LEDs comprise a plurality of LEDs arranged in a row direction [i.e. a multiplicity of light emitting diodes] are offset from each other across the printheads (28) (Cleary et al. –

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Summary, Page 1, Paragraph 6 and Figure 2A, shown previously). Cleary et al. also teaches various embodiments of this aspect of the invention to include other sources of radiation besides those discussed specifically (Cleary et al. – Summary, Page 1, Paragraph 7 and Detailed Description, Page 4, Paragraph 47). Cleary et al. *does not* specifically teach the row of LEDs is offset from an adjacent row of LEDs in a direction along a row. *However*, Ostler et al. teaches a radiation source for curing radiation-curable fluid, the source comprising an array of LEDs, particularly a plurality of adjacent rows of LEDs and a row of LEDs offset from an adjacent row of LEDs in a direction along a row (Ostler et al. – Title; Abstract; & Figure 1110, shown previously).

Given the same field of endeavor, specifically the use of an array of Light Emitting Diodes (LEDs) as a radiation source to cure a liquid material, it is apparent that one of ordinary skill in the art at the time the invention was made would have been motivated to combine the LED array of a multiplicity of LEDs used to cure radiation-curable ink as taught by Cleary et al. with the specific layout of the LEDs in an array of LEDs for curing the radiation-curable liquid as taught by Ostler et al., in an effort to provide the number of diodes necessary to achieve the output power to cure the material while adequately managing the heat to avoid heat damage to the curing light as well as the recording medium [i.e. the patient] (Ostler et al. – Background, Page 1, Paragraph 2 and Objects, Page 1, Paragraph 4).

i. As related to dependent **claim 138**, the combination of Cleary et al. and Ostler et al. remains as applied to **claim 133** above, and continues to teach a device for cooling the radiation source (Ostler et al. – Detailed Description, Pages 3-5, Paragraphs 59, 62, 64, & 65).

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j. As related to independent **claim 140**, Cleary et al. discloses a printer for use in printing a fluid onto a substrate, the printer comprising a radiation source (24) of elements in an array. The printer provides relative movement between the source and the substrate in a curing direction (paragraph 0034). The radiation source comprises an array of radiation emitting elements (Cleary et al. – Figure 2A, Reference #24-1 & #24-2, shown previously). Cleary et al. also teaches various embodiments of this aspect of the invention to include other sources of radiation besides those discussed specifically (Cleary et al. – Summary, Page 1, Paragraph 7 and Detailed Description, Page 4, Paragraph 47). Cleary et al. *does not* specifically teach the adjacent elements arranged to not be aligned in the curing direction with each other. *However*, Ostler et al. teaches a radiation source for curing radiation-curable fluid, the source comprising an array of LEDs, particularly a plurality of rows of LEDs and the element of the radiation-emitting elements is not aligned in the curing direction with any adjacent elements of the radiation-emitting elements [i.e. each row of LEDs is offset from the adjacent row of LEDs] (Ostler et al. – Title; Abstract; & Figure 1110, shown previously).

Given the same field of endeavor, specifically the use of an array of Light Emitting Diodes (LEDs) as a radiation source to cure a liquid material, it is apparent that one of ordinary skill in the art at the time the invention was made would have been motivated to combine the LED array of a multiplicity of LEDs used to cure radiation-curable ink as taught by Cleary et al. with the specific layout of the LEDs in an array of LEDs for curing the radiation-curable liquid as taught by Ostler et al., in an effort to provide the number of diodes necessary to achieve the output power to cure the material while adequately managing the heat to avoid heat damage to the curing light as well as the

recording medium [i.e. the patient] (Ostler et al. – Background, Page 1, Paragraph 2 and Objects, Page 1, Paragraph 4).

k. As related to dependent **claim 141**, the combination of Cleary et al. and Ostler et al. remains as applied to **claim 140** above, and continues to teach the array comprises a plurality of adjacent rows of elements, wherein a row of elements is offset from an adjacent row of elements in a direction substantially perpendicular to the cure direction (Ostler et al. – Figure 1110, shown previously).

l. As related to dependent **claim 142**, the combination of Cleary et al. and Ostler et al. remains as applied to **claim 140** above, and continues to teach the adjacent rows of elements are offset so that adjacent elements in the adjacent rows do not align in a direction substantially perpendicular to the rows of elements (Ostler et al. – Figure 1110, shown previously).

m. As related to dependent **claim 143**, the combination of Cleary et al. and Ostler et al. remains as applied to **claim 140** above, and continues to teach the source comprises N rows of elements [i.e. LEDs], the elements of each row having a pitch of w along the row direction, and wherein each row of elements is offset by Yw/N from an adjacent row, wherein Y, w, and N are integers (Ostler et al. – Figure 1110, shown above).

n. As related to dependent **claim 144**, the combination of Cleary et al. and Ostler et al. remains as applied to **claim 140** above, and continues to teach the radiation source is adapted to emit UV radiation (Cleary et al. – Detailed Description, Page 3, Paragraph 37).

o. As related to dependent **claim 145** and further dependent **claim 125**, the combination of Cleary et al. and Ostler et al. remains as applied to **claim 140** above, and

continues to teach the elements of the source comprise light emitting diodes [i.e. LEDs] (Cleary et al. – Summary, Page 1, Paragraph 6 and Ostler et al. - Title & Abstract) and the array of light emitting diodes is adapted for use in curing ink in an ink jet printer (Cleary et al. – Detailed Description, Pages 3-4, Paragraphs 37 & 45).

p. As related to dependent **claim 146**, the combination of Cleary et al. and Ostler et al. remains as applied to **claim 140** above, and continues to teach that the source is elongate (Cleary et al. – Figure 2A, shown previously).

q. As related to dependent **claim 153**, the combination of Cleary et al. and Ostler et al. remains as applied to **claim 140** above, and continues to teach the LEDs are tuned to emit over a very narrow bandwidth (Cleary et al. – Detailed Description, Page 3, Paragraph 42). While Cleary et al. does not explicitly disclose that 90% of the radiation emitted has a wavelength in within a 50nm band, it is specified that the LEDs emit radiation over a very narrow bandwidth and as shown in Figure 10B, the vast majority of the radiation is emitted within a wavelength bandwidth close to 50nm. Therefore, it would have been obvious to one of ordinary skill in the art to have at least 90% emitted in this region to eliminate wasted energy and to set and cure the fluid quickly and efficiently.

r. As related to dependent **claim 154**, the combination of Cleary et al. and Ostler et al. remains as applied to **claim 140** above, and continues to teach that the fluid is ink (Cleary et al. – Title; Abstract; and Detailed Description, Page 2, Paragraph 34).

s. As related to independent **claim 155**, Cleary et al. discloses an apparatus for use in curing radiation-curable fluid in a printer, the apparatus comprising a radiation source

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comprising an array of radiation-emitting elements [i.e. LEDs] (24) that comprises a plurality of adjacent rows of elements (24-1, 24-2). The rows of elements comprise a plurality of elements arranged in a row direction [i.e. a multiplicity of light emitting diodes] are offset from each other across the printheads (28) (Cleary et al. – Summary, Page 1, Paragraph 6 and Figure 2A, shown previously). Cleary et al. also teaches various embodiments of this aspect of the invention to include other sources of radiation besides those discussed specifically (Cleary et al. – Summary, Page 1, Paragraph 7 and Detailed Description, Page 4, Paragraph 47). Cleary et al. *does not* specifically teach the row of elements is offset from an adjacent row of elements in a direction substantially parallel to a row. **However**, Ostler et al. teaches a radiation source for curing radiation-curable fluid, the source comprising an array of radiation-emitting elements [i.e. LEDs], particularly a plurality of adjacent rows of elements and a row of elements offset from an adjacent row of elements in a direction substantially parallel to a row (Ostler et al. – Title; Abstract; & Figure 1110, shown previously).

Given the same field of endeavor, specifically the use of an array of Light Emitting Diodes (LEDs) as a radiation source to cure a liquid material, it is apparent that one of ordinary skill in the art at the time the invention was made would have been motivated to combine the LED array of a multiplicity of LEDs used to cure radiation-curable ink as taught by Cleary et al. with the specific layout of the LEDs in an array of LEDs for curing the radiation-curable liquid as taught by Ostler et al., in an effort to provide the number of diodes necessary to achieve the output power to cure the material while adequately managing the heat to avoid heat damage to the curing light as well as the recording medium [i.e. the patient] (Ostler et al. – Background, Page 1, Paragraph 2 and Objects, Page 1, Paragraph 4).

t. As related to dependent **claim 156**, the combination of Cleary et al. and Ostler et al. remains as applied to **claim 155** above, and continues to teach the adjacent rows of elements are offset so that adjacent elements in the adjacent rows do not align in a direction substantially perpendicular to the rows of elements (Ostler et al. – Figure 1110, shown above).

u. As related to dependent **claim 157**, the combination of Cleary et al. and Ostler et al. remains as applied to **claim 155** above, and continues to teach the source comprises N rows of elements, the elements of each row having a pitch of w along the row direction, and wherein each row of elements is offset by Yw/N from an adjacent row, wherein Y, w, and N are integers (Ostler et al. – Figure 1110, shown above).

v. As related to dependent **claim 158**, the combination of Cleary et al. and Ostler et al. remains as applied to **claim 155** above, and continues to teach the source is adapted to emit UV radiation (Cleary et al. – Detailed Description, Page 3, Paragraph 37).

w. As related to dependent **claim 159**, the combination of Cleary et al. and Ostler et al. remains as applied to **claim 155** above, and continues to teach the LEDs are tuned to emit over a very narrow bandwidth (Cleary et al. – Detailed Description, Page 3, Paragraph 42). While Cleary et al. does not explicitly disclose that 90% of the radiation emitted has a wavelength in within a 50nm band, it is specified that the LEDs emit radiation over a very narrow bandwidth and as shown in Figure 10B, the vast majority of the radiation is emitted within a wavelength bandwidth close to 50nm. Therefore, it would have been obvious to one of ordinary skill in the art to have at least 90% emitted in

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this region to eliminate wasted energy and to set and cure the fluid quickly and efficiently.

x. As related to dependent **claim 160**, the combination of Cleary et al. and Ostler et al. remains as applied to **claim 155** above, and continues to teach the elements comprise light emitting diodes [i.e. LEDs] (Cleary et al. – Summary, Page 1, Paragraph 6 and Ostler et al. - Title & Abstract).

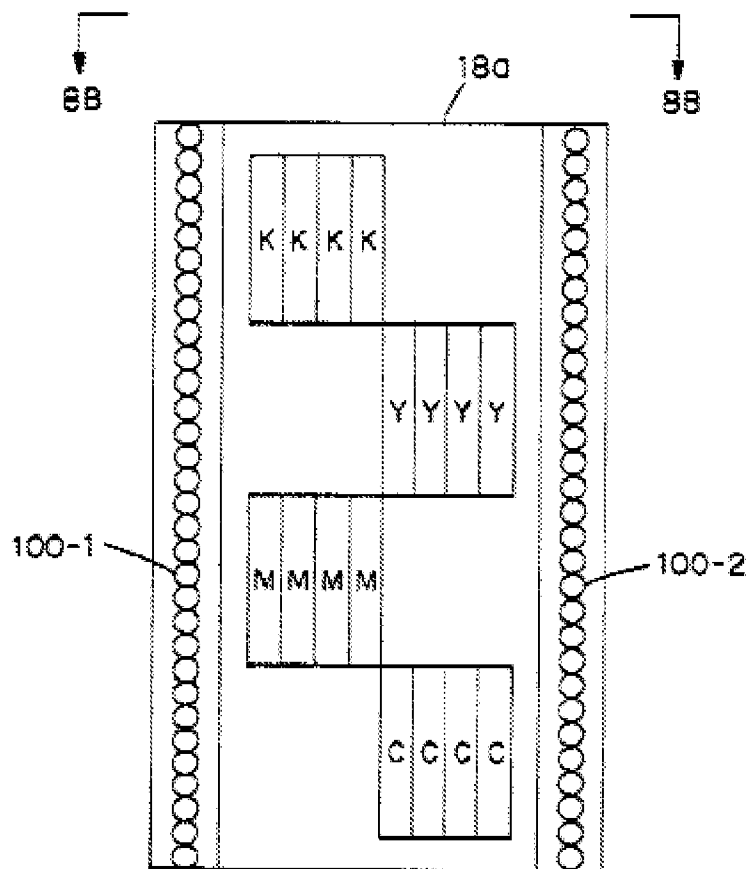
y. As related to dependent **claim 161**, the combination of Cleary et al. and Ostler et al. remains as applied to **claim 155** above, and continues to teach that the source is elongate (Cleary et al. – Figure 2A, shown previously).

z. As related to dependent **claim 167**, the combination of Cleary et al. and Ostler et al. remains as applied to **claim 155** above, and continues to teach a device for cooling the radiation source (Ostler et al. – Detailed Description, Pages 3-5, Paragraphs 59, 62, 64, & 65).

aa. As related to independent **claim 169**, Cleary et al. discloses a radiation source for use in curing a fluid in a printer, the source includes an array of radiation emitting elements (24-1, 100-1). While Cleary et al. teaches a singular non-rectangular arrangement of elements (Cleary et al. - Figure 2A, shown previously, and Figure 8A, shown below) and also teaches various embodiments of this aspect of the invention to include other sources of radiation besides those discussed specifically (Cleary et al. – Summary, Page 1, Paragraph 7 and Detailed Description, Page 4, Paragraph 47). Cleary et al. **does not** specifically teach the elements are arranged in a plurality of rows in a non-rectangular arrangement. **However**, Ostler et al. teaches a radiation source for curing

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radiation-curable fluid, the source comprising an array of radiation-emitting elements [i.e. LEDs], particularly a plurality of rows of elements wherein the elements of the array are in a non-rectangular arrangement (Ostler et al. – Title; Abstract; & Figure 1110, shown previously).



Cleary et al. -

FIG. 8A

Given the same field of endeavor, specifically the use of an array of Light Emitting Diodes (LEDs) as a radiation source to cure a liquid material, it is apparent that one of ordinary skill in the art at the time the invention was made would have been motivated to combine the LED array of a multiplicity of LEDs used to cure radiation-curable ink as taught by Cleary et al. with the specific layout of the LEDs in an array of LEDs for

curing the radiation-curable liquid as taught by Ostler et al., in an effort to provide the number of diodes necessary to achieve the output power to cure the material while adequately managing the heat to avoid heat damage to the curing light as well as the recording medium [i.e. the patient] (Ostler et al. – Background, Page 1, Paragraph 2 and Objects, Page 1, Paragraph 4).

bb. As related to independent **claim 170**, the combination of Cleary et al. and Ostler et al. remains as applied above, and continues to teach a radiation source for use in curing fluid in a printer, the source comprising an array of LEDs, wherein the array of LEDs comprises N adjacent rows of LEDs, the LEDs of each row having a pitch of w along the row direction, and wherein each row of LEDs is offset by Yw/N from an adjacent row, wherein Y, w, and N are integers (Ostler et al. – Figure 1110, shown previously).

cc. As related to independent **claim 171**, the combination of Cleary et al. and Ostler et al. remains as applied above, and continues to teach a printer for use in printing a printing fluid onto a substrate, the printer comprising a radiation source for curing the fluid, wherein the printer is arranged to provide relative movement between the radiation source and the substrate in a curing direction during the curing operation (Cleary et al. – Title; Abstract; and Detailed Description, Paragraph 34). The radiation source comprises a plurality of radiation-emitting elements in an array, the arrangement of the elements in the array being such that they are not aligned in a column substantially aligned with the curing direction, wherein the source comprises N rows of elements [i.e. LEDs], the elements of each row having a pitch of w along the row direction, and wherein each row of elements is offset by Yw/N from an adjacent row, wherein Y, w, and N are integers (Ostler et al. – Figure 1110, shown previously).

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dd. As related to independent **claim 172**, the combination of Cleary et al. and Ostler et al. remains as applied above, and continues to teach an apparatus for use in curing radiation-curable fluid in a printer, the apparatus comprising a radiation source comprising an array of radiation-emitting elements, the array of radiation-emitting elements comprises N adjacent rows of elements, wherein the source comprises N rows of elements, the elements of each row having a pitch of w along the row direction, and wherein each row of elements is offset by Yw/N from an adjacent row, wherein Y, w, and N are integers (Ostler et al. – Figure 1110, shown previously).

7. **Claims 131, 147, & 162** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Cleary et al.** (US 2002/0149660 A1) and **Ostler et al.** (US 2001/0046652 A1) as applied above, and in further view of **Mills et al.** (US 2003/0035037 A1).

As related to dependent **claim 131, claim 147, & claim 162**, the combination of Cleary et al. and Ostler et al. clearly teach the limitations of **claim 126, claim 140, & claim 155** above, but *does not* specifically teach a means for varying the power of the radiation source. *However*, Mills et al. teaches a printing system with a similar radiation source of LEDs. A controller increases and decreases the current to the LEDs to adjust the timing, intensity, and duration of the radiation emission (Mills et al. - paragraphs 0067, 0078). In other words, the supplied current adjusts the pulse rate of UV radiation from the LED to precisely control the amount and timing of energy that is transmitted. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the radiation source of the combination of Cleary et al. and Ostler et al. with the

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teaching of Mills et al. so that the amount of power used to emit radiation can be varied to control and conserve during the printing and curing process.

Response to Arguments

8. Applicant's arguments with respect to the above mentioned claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kobayashi et al. (US 2004/0011457 A1) teaches a fluid curing assembly with LEDs arranged in a plurality of rows. Ollett et al. ((US 2004/0090794 A1) teaches a high intensity curing system with an array of LEDs arranged as desired.

9. ***Examiner's Note:*** Examiner has cited particular Figures & Reference Numbers, Columns, Paragraphs and Line Numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in their entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Zimmermann whose telephone number is (571)270-3049. The examiner can normally be reached on Monday - Thursday, 7:00am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Luu can be reached on 571-272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LUU MATTHEW/
Supervisory Patent Examiner, Art Unit 2861



JPZ